

ADDRESS

OF

EARL STANHOPE,

PRESIDENT

OF

The Medico-Botanical Society,

FOR THE

ANNIVERSARY MEETING,

JANUARY 16th, 1837.

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1837.

At a General Meeting of the MEDICO-BOTANICAL SOCIETY OF LONDON, holden on Wednesday, the 24th of May, 1837,—It was moved by SIR JAMES M'GRIGOR, Bart., Physician-General to the Army Medical Department, &c. &c. seconded by FREDERIC FARRE, M. D.

AND RESOLVED UNANIMOUSLY,

THAT the warmest thanks of the Medico-Botanical Society are due, and are hereby given, to the President, EARL STANHOPE, for his enlightened and valuable Address, and that his Lordship be requested to permit it to be printed for distribution amongst the Members of the Society.

GEORGE G. SIGMOND, M. D. }
JOHN FOOTE, Jun. F.R.C.S. } *Secretaries.*

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GENTLEMEN,

I am again allowed, by the kindness of the Managers of the Royal Institution, to address you in this place, where persons who are pre-eminent by their abilities and acquirements, and who reflect much lustre on the age and country in which we live, deliver frequently the most admirable discourses, explaining with the utmost perspicuity and accuracy, and illustrating by interesting experiments, those sciences of which they are distinguished ornaments; but I feel so sensibly my inferiority to them and my own deficiencies, that I should shrink from attempting the task which you have imposed upon me, if I were not compelled to undertake it by your commands, for such I shall always consider the wishes that you express, and also by my duties as President of this Society. That high honor has been again conferred upon me by your partiality, and I am induced to hope

that you will continue to extend to me that indulgence which I so much require, which I have so long experienced, and for which I entreat you to accept my cordial and most grateful thanks.

This Society owes the station which it has now acquired amongst learned bodies, and the reputation which it enjoys, not to the individual who, during several years, has, through your favor, been its President, but to the assistance of those members of the medical profession with whom he has the happiness of being associated, as well as to the scientific eminence of its Professors, and to the exemplary manner in which its other Officers discharge their several duties. With the exception of the President, and of the Treasurer, whose conduct is most honorable to himself and most satisfactory to this Society, all its Officers, and nine of the eleven other Members of the Council, belong to the medical profession, to which our pursuits cannot fail to be interesting, and will, I trust, be serviceable. In offering to all of them the humble tribute of my praise, I wish to take this opportunity of expressing our gratitude to our learned Conservator, Dr. Farre, for the indefatigable labour which he has bestowed on the valuable Herbaria of this Society, and for the important advantages which have been derived from his laudable exertions.

Upon this, and upon similar occasions, I am obliged to notice subjects of condolence, as well as those of congratulation; and I am grieved to inform you that death has deprived us of Mr. Twining, of Calcutta, the author of a most excellent Paper, which was mentioned by me in an Address some years ago, on the medicinal qualities of a Powder prepared from the Root of a species of *ASCLEPIAS*, which is common in Hindoostan, and is known

by the name of *Madar*. The luminous manner in which he fully treated the subject, the accuracy with which he appears to have made his numerous trials, and the candour which he displays in stating their results, are such as inspired us with sincere respect, and we hoped that his assistance would have been very beneficial to this Society. Such was the interest which he shewed for its success, and so highly did he appreciate its objects, that, although he resided in another hemisphere, and was already a Corresponding Member, he wished to become still more useful, and he was, at his own request, elected a Fellow. The same zeal was also evinced, and under similar circumstances, by Dr. Bourke, of Bengal, whose loss is much to be deplored by this Society. I will not now repeat what I formerly said on the subject of Mr. Twining's Paper; but I would most strongly recommend, since the *Madar* Powder can be obtained in this country, that it should be ascertained by repeated trials, of which I trust that the results will be communicated to this Society, whether it would be as efficacious here, as it was proved to be in the East Indies, for the cure of several disorders, and amongst others of inveterate Ulcers, even of such as were attended with Caries of the Bones.

My learned and revered friend, the President of the Royal College of Physicians, has favored this Society with the communication of a Letter which he received from Sir Robert Ker Porter, at Caracas, transmitting a translation of the Official Report, made to the Government of Venezuela by the Medical Board, on the subject of a Plant that grows in the central and southern parts of Columbia, and is called by the Natives *Cuichunchulli*. It is administered in cases of that deplorable disease the *Elephantiasis tuberculata*, or what may be more

properly termed the *Lepra tuberculata*, which happily is almost, if not entirely, unknown in Europe, but which is not unfrequent in some parts of the new world, and has hitherto been considered as incurable. The medicinal properties of this Plant reside in its Root, which being reduced to powder is given in doses of half a drachm, and in some instances of two drachms and a half; and it is deeply to be regretted that the extreme difficulty of procuring it, the insufficient quantity in which it has been found, and the high price which it bears, of £3. 6s. per ounce, have in every case prevented a full and satisfactory trial of its efficacy. Experience has proved that it alleviates the symptoms of the disease, and the Medical Board considers it “very probable that it will effect a cure “in some cases;” but Dr. Arvelo expresses a contrary opinion, and the question cannot be decided until medical practitioners are furnished with an ample supply of this Plant which ought to be cultivated for that purpose. The Government of Venezuela is willing to encourage by pecuniary assistance the procuring of the Plant; but its rarity is such as to preclude the expectation of obtaining it in abundance, and its price would of course be enhanced by the demand. Its cultivation is therefore an object of so much importance, that I earnestly hope it will soon excite the attention of those who possess the opportunities of administering the remedy, and particularly of Dr. Bancroft, of Jamaica, who is a Corresponding Member of this Society, and who is the author of a Paper on this subject, which was read in 1835 before the College of Physicians and Surgeons in that Island, and which is by far the best and the most complete that I have hitherto seen. It is stated by Fuenmayor, in a Report to the Secretary of State for the Interior in Venezuela, that this remedy

operated simultaneously as a Cathartic, Diaphoretic, Diuretic, Emetic, and Sialogogue; but although it produces nausea and sometimes vomiting, it seems to me doubtful whether it can strictly be considered as an Emetic. In another Paper which is also prefixed to the Report of the Medical Board, it is observed that in all the cases of which the writer had any knowledge, and in which the remedy had been employed, "more than two months elapsed generally "before any sensible effects were visible." In the case however of a Patient who had been ten years afflicted with the disease and had received no relief, considerable improvement took place in twelve days, and after having taken about thirteen drachms of this medicine, the supply of which was, as the Physician says, exhausted "at the "most opportune moment." It is also observed, in the same Paper, that in two or three cases the effects of the Plant were "small or almost imperceptible," but that there was much alleviation in two other cases, in one of which a solution of Corrosive Sublimate was externally applied, and in which the trial cannot therefore be considered as satisfactory. Dr. Bancroft mentions also the case of one of his Patients who received no benefit whatever, after taking, in about two months, five ounces of the Plant. In the six other cases in which it was administered by him, in quantities of ten drachms to each, and in which he very judiciously abstained from employing any other medicines, he perceived no violent effects, but a slow improvement in five or six weeks, and the cure was, as he remarks, "scarcely begun," when the quantity of the Plant that had been allotted to each Patient was consumed. Senor de Aroche has given details of the case of a Patient who, in twenty-five days, took above four ounces of the Plant, without any permanent benefit; but he

notices only the operation of the medicine, and not the alteration, if any, which had occurred in the symptoms. The Medical Board of Venezuela states in its Report, that few remedies "have offered better prospects of success "at the commencement of the trials;" and although this does not appear to have been universally true, the improvement that was experienced in several cases, and amongst others in two at Cuenca, respecting which no medical statement has been received, is such as to render most desirable a further investigation. The Padre Velasco, a Jesuit, relates of his own personal knowledge, that a Lay Brother of the Order was, in 1754, cured of Leprosy by the Indians, and in a short time restored to perfect health; but he gave no description of the Plant that was employed, by which it could be recognized, and by which its identity could be shewn with that which has been subsequently used, and his statement is thought by Dr. Bancroft to be exaggerated and in some respects unfounded. A Medical Practitioner at Bogota supposes this Plant to be the same as that which is administered as a purgative to children, and the similarity in the name which led to this conclusion may naturally have been the cause of error. Too much praise cannot be bestowed on a French Gentleman, M. Marcucci, for the zeal and perseverance which induced him to encounter many difficulties and dangers in obtaining this Plant, the botanical character of which has been very accurately defined by Dr. Bancroft. It was called by Mutis the *VIOLA parviflora*, and by Ventenat the *VIOLA Ionidium*; but Dr. Bancroft is of opinion that although it "most nearly resembled" the *IONIDIUM parviflorum*, it is however a new species, and it was named by him, as a just tribute of respect to M. Marcucci, the *IONIDIUM Marcuccii*. Until the cul-

tivation of this Plant shall have afforded such a supply as would enable medical practitioners to form a just estimate of its efficacy in a disease which Dr. Bancroft, in a Letter to my learned friend, Dr. Sigmond, describes as “most intractable and grievous,” I would with all deference submit to their consideration, whether it might not be proper to try in such cases some medicine which would be compounded of drugs suitable to the climate, and which in its sensible operations would be similar to the *Cuichunchulli*.

To my learned friend, Dr. Hancock, who collected, during his long residence in the new world, and has subsequently communicated to this Society very valuable information, we are indebted for some Papers of great importance; and, amongst others, for one on the medicinal properties and uses of a Plant which is called, in British Guiana, *Couru-watti*, and by the tribes of the interior, *Conopia*. Unlike the Plant which I before mentioned, it is found in abundance; but though Dr. Hancock has fully described it, he thinks that it is liable to be confounded with others, and he observes that, as the Natives are very accurate in discriminating their more useful Plants, it is requisite to attend to the names which they have affixed to them, and which are of far more service than their botanical appellations. It appears to be of the natural order of *CANNEÆ*, and may be the same as that which is described by Rolander; but Mr. Parker, of Liverpool, who is well skilled in Botany, considers it to be the *ALPINIA exaltata* of Meyer; and it is allowed by the greatest authority, by M. De Candolle, that much uncertainty prevails throughout this Natural Family of Plants. Dr. Martius, of Erlangen, for whom I entertain the highest respect, thinks that the Plant which produces

the larger Cardamoms, is, according to Rheede, a species of ALPINIA; and it seems to deserve the attentive consideration of Botanists, whether there are any, and what, real distinctions between the Genera CANNA, COSTUS, ALPINIA, and AMOMUM. The leaves and fruit of the *Couru-watti* are medicinal, as well as the root, which is diaphoretic, diuretic, and, in large doses, emetic. From the two former of these qualities it is very useful in Dropsies; and Dr. Gill, of Demerara, knew cases of that description which appeared to be desperate, but which had been cured by a strong Decoction or Infusion of the Root, with an addition of Gin. It is also of great service in the Hooping Cough, as was shewn by the example of a family consisting of 21 Children, all of whom, except one or two, were attacked with this disorder, but recovered in a week or ten days, after taking small doses of the Root prepared in Syrup, and, thrice a day, a strong Infusion of the Root, which operated frequently as an Emetic, and caused a free perspiration. It is employed, moreover, in Rheumatism, Dysentery, Asthma, and Fevers, as well as in cases of poisoned wounds, by laying on them some of the bruised Root, and by administering, internally, its Decoction. The Leaves of this Plant are sometimes used to envelop the whole body, and produce a profuse perspiration; and other Leaves, especially those of the *ARUM arborescens*, and of a species of STERCULIA, are applied in that manner, and for the same purpose. M. De Candelolle states, in mentioning the AROIDEÆ, that in cases of general Dropsy at Demerara, the Indians cover the whole body with the fresh Leaves of the *DRACONTIUM par-tusum*, which occasion a slight vesication, but are not more rubefacient than many others. Dr. Hancock has no doubt that the AROIDEÆ might be used, externally, with

similar advantages to those derived from them by the Indians ; and he recommends a trial, in aid of internal remedies, of the Leaves of the *RUMEX maximus*, and also of those which are more stimulant, as the *ARUM maculatum*. He informs us, that very dangerous Dysenteries have been cured in South America by producing perspiration through the employment, in this manner, of the Leaves of the great climbing *ARUM*, a mode of treatment which he believes to be the most certain, though circumstances may require a deviation from it ; and he mentions, in another very interesting Paper, on the Indian practice of Medicine in Guiana, that by externally applying the aromatic Leaves of the *ALPINIA odorata*, by warm Infusions of sudorific plants, and by vapour baths, the Patient, after an hour or two, falls asleep, and in general is, when he awakes, free from pain and fever. Those Leaves which are not of a stimulant nature may be supposed to operate through the absorption of their exhalations, but the subject is, both physiologically and therapeutically, highly deserving of attention, and leads to considerations of great practical importance. In order to simplify the inquiry, and to arrive at more certain results, I would propose that trials should be made in several disorders, and particularly in those above mentioned, of Leaves of various qualities, aromatic, rubefacient, &c., but without the employment of warm infusions, vapour baths, or other agents.

The practice of the Indians in curing diseases is not to be slighted as unscientific, for it is founded upon nature and experience, and has been proved to be eminently successful. Mr. Whitlaw, who had ample opportunities of observation, states, that Pleurisy, and all acute inflammations, were cured by them without bleeding ; that “ the

“ Patients were convalescent frequently in a few hours,” and in general in a period not exceeding two days; that the same effects were produced upon the white population as upon the natives; and that “ scrofula, liver complaints, consumption, and cutaneous diseases, were unknown among them.” Dropsies, which had defied the medical art, have been vanquished by their simple remedies; and Dr. Hancock has, in several instances, known the Indians to make “ sound cures of limbs which had been condemned to amputation by European Practitioners.” It is not the skill and science which may be displayed in an operation, or the success which may attend it, that are either the most advantageous to the Patient, or the most honourable to the Practitioner; it is, on the contrary, that superior talent, when it is possible to exert it, which, by judicious treatment and by due attention to the constitutional disease, renders the operation unnecessary. The amputation of a limb cannot justly be considered as its cure, but as the lesser of two evils to which the Patient is exposed, and requisite in some cases to the preservation of his life, or, according to the expression of an ancient Physician, “ *detractio amissio partis est, non sanatio;*” and I need not observe that a Solvent for the Stone would be very far preferable to the dangerous and painful operation of Lithotomy. I am informed, upon authority deserving of credit, that an Ointment, made from the Leaves of the common Bean, gathered when the Plant is in flower, has been very successful in dispelling those cancerous humours which, if allowed to continue, might require excision; and we know that the operation does not always remove the disease, which in most cases returns, and ultimately proves mortal.

The important advantages which may be derived from

popular remedies were fully appreciated by Dr. Osiander, who composed a most instructive work upon this subject, and has collected, with great industry, many interesting facts. He states, as the result of his own experience in a variety of cases, that remedies which appeared insignificant had, however, proved effectual, when the strongest medicines and the skill of eminent physicians had failed of success. Such was also the opinion of Hoffmann, who, after a practice of many years, found that the remedies, which he describes as “*vernacula, parabiliora, et domestica omnibus nota*,” were far preferable, both in their power and in their utility, to chemical preparations, and accomplished a safer and more certain cure. Many medicines, which now are universally prized, were originally only popular remedies, some of which were discovered perhaps by accident, as was lately the use of cotton in cases of burns, and some of them may have been derived from an attentive examination of the habits of animals, guided as they are by unerring instinct. It is stated by my learned friend, Dr. Sigmond, in his excellent Paper on the *Secale Cornutum*, which is considered by Mr. Mitchell, after long experience, to be a “safe and efficacious medicine,” possessing “all the properties which a Practitioner could desire,” that it was not tried in this country till 1824, although it was mentioned by Camerarius in 1688 as a common remedy in Germany. The constant employment of any popular remedy shews that it must, at least occasionally, have been successful, and that it is deserving of accurate and scientific trials, made with that caution which may have been neglected in popular practice. I am aware that empiricism on the one side, and credulity on the other, have given great vogue to some pretended nostrums and universal medicines, which

seem to assume that all diseases have the same cause and are susceptible of the same cure ; but these are not what are termed popular remedies, and the former are almost unknown where the latter are often employed. As an example of the medicinal effects produced by vegetables which appear to be insignificant, we are told by Rust, that a young woman, who, till the twenty-second year of her age, had been afflicted with St. Vitus' Dance, and had derived no relief from medicine, was completely cured by living, during ten weeks, entirely on Spinage. As an example that Vegetables may possess other medicinal qualities than those which are generally ascribed to them, I may mention that an Infusion of the common Tansy is used in Russia to cure the Jaundice, although the late Professor Geiger, whose name I cannot pronounce without grief for his irreparable loss, and the utmost reverence for his inestimable services, says that its medicinal qualities are “ *nervina, anthelminthica, diuretica.*” A warm Infusion of Sloe Leaves, which are so often employed for the adulteration of Tea, has been administered in cases of Scrofula ; a Decoction of dried Peach Leaves for the Stone ; and Yew Leaves, reduced to powder, for Hydrophobia. These, like other popular remedies, demand our attention ; and the veneration which all of us must feel for the authority of Linnæus ought to add weight, if it were possible, to his admonition : “ *discant itaque juvenes* “ *medici minime spernere, sed ea annotare accurate, quæ* “ *apud vulgum audiant medicamenta decantari.*”

One of the most important inquiries which can occupy the attention of this Society, and of the Medical Profession, is, the most eligible mode of procuring, from any particular Plant, and of preserving from decay or decomposition its active and essential principles, whether

Decoctions, warm or cold Infusions, or Extracts, are to be preferred, and whether Water or Alcohol is the proper solvent? This inquiry is the more interesting, as well as the more requisite, from the difference of opinion, and therefore of practice, which seems to prevail upon these points. It is said to be well known to Chemists, that the residuum of Infusions or Decoctions of Cinchona will yield nearly as much Quinine as the fresh powder, and if so, it would appear that a very small portion of that principle is obtained by those preparations, the utility of which is, however, acknowledged. It was the opinion of Bate, and it is also that of my learned friend, Dr. Hancock, that Nitrous Ether, which he justly considers to be one of the most useful remedies, is superior to any other menstruum for facilitating the extraction of the active principles of Plants, which would afterwards be disengaged from it, when they are evaporated so as to form an Extract. He found also, "from a long course of practical experience," which, he says, was fully confirmed by the experiments of Poggiati, that Water has a "very weak action" on the active principles of Sarsaparilla, which is far more efficacious when dissolved in Wine or Spirits, and which is injured, and loses much volatile matter, by long coc-tion. In every instance there arises the preliminary and most important question, what is the active principle of any particular Plant? Chemistry may indeed ascertain with accuracy the proportion which it contains of any known educt, but its efficacy, as compared with that of any other preparation of the Plant, can only be learned by medical experience, by repeated trials made under similar circumstances, and accurately observed. Its efficacy may not consist in any single principle, but in a combination of its chief components, and we are informed, by Dr.

Hancock, that “a very small dose of the aggregate will often suffice when none of the remedies separately taken will produce any sensible effect.” This is entirely conformable to the remark of Dr. Harrison, that the Fevers in Lincolnshire may be cured by a combination of Bitters, Astringents, Bistort and *CALAMUS aromaticus*, although no advantage was gained from their separate employment. The doctrine of Linnæus is undoubtedly correct “*ubi vires ibi virtus* ;” but we could not safely predicate the contrary, and we ought not rashly to reject as useless and inert all those constituents which appear inactive. They may, in combination with others, possess sanative properties, and we know that many which exist in nature are so subtle as to elude chemical analysis—a fact that may be exemplified in several instances.

In a Paper, which was communicated to us by Mr. Alsop, who, I am happy to say, is now one of the Associates of this Society, on the preparation of Vegetable Infusions, by what he calls a “more uniform and effective mode,” it is proposed to accomplish the object by percolation ; but it may be questioned whether some substances do not require a long maceration, for the purpose of extracting their medicinal virtues. Coffee is often prepared in this manner for domestic use ; and I found, by an experiment which I made, that the residuum, when boiled in water, was very nauseous ; so that in this case it was obvious that all the aromatic principle had been obtained by percolation ; but it cannot therefore be concluded that the same process would be successful with substances which do not possess that principle, or in which the sanative qualities are of a different description. It might be important to examine, both medicinally and chemically, the residuum of Coffee, in order to ascertain whether it is

noxious, which I am inclined to believe, and whether the mode of its preparation, which in this country is too common, must not be prejudicial to health. He proposes also, as a “ simple means for their preservation, so as to admit “ of their extemporaneous employment without waste,” that the Infusion should be strained while hot into the bottle, which should be completely filled, allowing the cork to displace its own bulk of the liquid. If, however, a perfect exclusion of the air is requisite to prevent decomposition, the object would of course be frustrated as soon as some of the Infusion was used, and could not be attained for more than an uncertain, and perhaps a very short, period. I have observed, by trials with several Infusions, that they are prevented from becoming mouldy, by adding to them a small quantity of Cloves. It is stated by Mr. Phillips, in his Translation of the new Pharmacopeia of the Royal College, which unfortunately does not give any directions upon the subject, that Infusions are never to be kept for use longer than a few hours, but prepared for the occasion upon which they are prescribed; and he remarks, that they are weaker when cold water is employed instead of hot water; unless the digestion be continued for a much longer time. The questions still remain, upon which I do not venture to form, and much less to offer, an opinion, whether a cold Infusion possesses more of the medicinal qualities, particularly of such as are volatile, than a Decoction, and also in what cases an Extract may be preferable, and in what manner it ought to be prepared, whether by spontaneous evaporation, or by heat; and if by the latter, in what degree, or for what duration, it ought to be applied. Extracts being more concentrated are, I need not say, more conveniently administered than those Infusions or Decoctions which, like

alterative medicines, must be given in considerable quantities; but the latter have, however, the advantage, which appears to be very important, and which is not neglected in medical practice on the continent, of enabling the dose to be regulated with greater accuracy, according to the constitution of the Patient, and to the effects which it produces. “The improvement of the Pharmaceutic Preparation of Vegetable Substances” is one of the primary and most important objects of this Society, which will, I hope and confidently expect, derive great benefit from the assistance of Mr. Squire, who is now one of its Associates, and who is known to have devoted much attention to this subject, on which he has acquired very extensive information and experience.

We are under the greatest obligations to my learned friend, Mr. Judd, the Librarian of this Society, for communicating to us most important information in his Narrative of Experiments, to ascertain the relative strength and medicinal qualities of Extracts, prepared in different modes from the same Plant. Their medicinal operation, and their physiological effects, can be learned only by actual trials, such as those which were made by Mr. Judd in so accurate a manner, and with such decisive results, that I consider them to be invaluable, and from their practical utility, very far preferable to the deductions of chemical analysis. In order to administer with safety very powerful medicines, it would, as he remarks, be necessary “that each preparation of the kind should, in a similar dose, be always followed by precisely similar effects,” but we know that very dissimilar processes are employed by the best pharmaceutical Chemists in procuring them; and he states that “notorious differences are daily observed in the relative strength and

“ effects of Vegetable Extracts, although obtained at the “ same season of the year from the same species of Plants,” and that this is “ exhibited by their action on the animal “ economy.” He has commenced these Experiments with Hemlock, as being one of the Plants which is most extensively employed, and gave it in Extracts, as being the “ most common, safe, and useful form,” but prepared in three different modes of evaporation;—1st, by heat, adding to the expressed juice 1-7th of its bulk of water; 2dly, in vacuo; and 3dly, by spontaneous desiccation. These Extracts “ varied considerably in colour, odour, “ and intensity of taste,” as well as in their effects, when the 1st and 3rd were compared with each other, and also with Opium, as to their powers when administered in similar doses of alleviating cough and procuring sleep in consumptive complaints. In all the three cases which he mentions, it was found by him that the Extract prepared by spontaneous evaporation produced very good effects, while that in which heat had been employed failed of success; and this is the more remarkable, as in two of those cases the former had been given before the latter was tried, and might therefore be supposed to have aided its operation. He observed also, in a number of experiments which he made with Cats, that the third kind of Extract was more powerful in its effects than the second, as the second was also to the first. Their physiological properties, the investigation of which was considered by Professor Christison to be very desirable, were also most instructive, as it was proved by Mr. Judd’s experiments that the effects were produced not on the stomach, which is the case with acrid poisons, nor on the brain, but on the blood, which was found to contain Hemlock, and on the heart. The experiments, and above all, the medical cases which he

relates, are of such extreme importance, that I look forward with the most eager anticipation to his prosecution of them in respect to all the other preparations of the Vegetable Materia Medica. He will thus promote, in a pre-eminent degree, the objects of this Society and the advantage of the Medical Profession; and he has already proved, what I have so frequently recommended, the necessity of actual trials. If I might be allowed to offer to him a suggestion, it would be to employ also, in his Experiments, the Extract prepared as directed in the Pharmacopeia of the Royal College, without the addition of any water.

The *CHIMAPHILA corymbosa*, which was lately received into that Pharmacopeia, is the subject of a very interesting Paper by Mr. Foote, and appears to have occasioned much controversy both among Botanists and among Physicians. By Linnæus, by the late revered President of the Society which bears his name, Sir James Edward Smith, and by Bigelow, it was considered to be the *PYROLA umbellata*, while two other Botanists contend that it belongs to a separate Genus. Its diuretic quality, which is noticed by Mr. Philipps in his Translation of that Pharmacopeia, and which renders it useful in Dropsies, as well as a palliative in Strangury and Nephritis, was doubted by the late Dr. Barton, Professor in the University of Pennsylvania, though it was found by Dr. Zollikofer to be certain, prompt, and effectual in its operation, though it was preferred by Dr. Somerville to other remedies of that nature, and though it was tried also with advantage by Dr. Marcet. It is, however, commended by Dr. Barton as an important Antilithric, but it is not valued as such by Dr. Eberle; and the former states, that the bruised leaves are rubefacient and vesicatory, while Dr. Zollikofer

represents that their action is in this respect very uncertain. All these three concur, however, with Bigelow in opinion, that it is a topical stimulant; and a cataplasm of the Leaves, which are the officinal part, was applied with success by Dr. Miller in some chronic, indurated swellings. The analysis made by Dr. Wolf, of Göttingen, shewed that it contains Tannin, and Dr. Zollikofer thinks that it possesses, in an eminent degree, tonic and astringent qualities. It is of service in intermittent fevers, according to the experience of Dr. Mitchell; it is administered as a tonic in typhus fevers, and it is of use in rheumatism, as was observed in one instance by Dr. Zollikofer, who mentions the good effects that it produced also in several cases of Dyspepsia; and adds that it is moreover a Sialogogue; and that it is said to relieve the tooth-ache, for which purpose the root of the *CHIMAPHILA maculata* has likewise been employed. Dr. Oslander informs us, that a warm Infusion of the *CHIMAPHILA corymbosa* is in North America a popular remedy for some cancerous complaints. The action of the *CHIMAPHILA corymbosa* is thought to be similar to that of the *ARBUTUS Uva Ursi*, but the latter, which is also tonic and diuretic, is chiefly prescribed in calculous and nephritic complaints. If such differences of opinion as those above mentioned exist with respect to some properties of the *CHIMAPHILA corymbosa*, the employment of which is sanctioned by the authority of the College of Physicians, how requisite must it appear to ascertain more accurately than has yet been done the qualities and effects of those Plants which are little known but which are supposed to be medicinal, which are esteemed as popular remedies, and which might prove to be most desirable additions to the *Materia Medica*; and how beneficial to mankind, as well as valuable to

science, must be such investigations, and those practical trials which alone can lead to satisfactory results.

A subject of extreme curiosity and also of medical importance, but which hitherto has not been sufficiently examined, has been brought under our notice by my learned friend, Dr. Sigmond, whose merits and services are eminently entitled to our respect and gratitude. The Paper to which I refer relates to Odours, many of which must be considered to possess a therapeutical agency, and such was the doctrine of some of the ancient Physicians, one of whom recommended them in Epilepsy, another in diseases of the stomach, and a third enumerated those which ought to be received into the *Materia Medica*. In latter times, Fragræus wrote a dissertation on the *Medicamenta Graveolentia*, and Wahlin published, in the *Amœnitates Academicæ* of Linnæus, a tract on the *Odores Medicamentorum*, which he divides into seven classes, to five of which he ascribes medicinal qualities. Thus the *Aromaticæ*, such as Cinnamon, excite the circulation; the *Fragrantes*, such as Saffron, stimulate the nerves; the *Ambrosiaceæ*, such as Musk, act on the heart; the *Aliaceæ*, such as Onion, promote perspiration; and the *Hercini*, such as the *GERANIUM Robertianum*, affect the bowels, the kidneys, or the uterine system. Odours, being yielded spontaneously, are of course to be distinguished from those exhalations which are produced by the action of heat, but the latter are known to exert a powerful influence; and a very remarkable instance of their operation is mentioned by Dr. Sigmond, in his excellent Lectures on *Materia Medica* and Therapeutics, which are now in course of publication. It is that, and I quote his own words, “ of a couple of
“ well-behaved married people, who had always lived
“ upon the most affectionate terms, and with good conjugal

“ feelings one for the other, almost a pattern of connubial
 “ happiness; but it was observed, that when this amiable
 “ couple had spent some time in a particular room in the
 “ house, they became engaged in a most violent quarrel,
 “ though every where else they were fond and well be-
 “ haved. The room was considered enchanted; but after
 “ some time the mystery was dissolved, by the discovery
 “ that these terrible disputes were owing to a quantity of
 “ Hyoscyamus placed near a stove, and as soon as it was
 “ removed perfect harmony was restored.” He also in-
 forms us, that the effluvia of Hemlock and of Opium have
 caused Apoplexy, and that “ Asthma has been produced
 “ by exposure to the aroma from Ipecacuanha during
 “ pulverization.” These facts may, however, be more
 easily explained than that relating to the Hyoscyamus,
 which, from its narcotic qualities, might have been expected
 to have an anodyne, not an irritating, effect. We are told,
 by Dr. Barton, that the smell of the *MAGNOLIA glauca*
 occasioned a paroxysm of Fever, and increased the se-
 verity of an attack of Gout. Dr. Sigmond relates, in one
 of his Lectures, the very powerful effects which were
 produced on Mr. Howison, during a voyage, by the smell
 of the Tobacco with which the vessel was loaded. The
 first symptom which he experienced was a feeling of suf-
 focation followed by frightful dreams, and when he awoke
 he was aware of the occurrences which took place, but
 was “ totally unable to speak or move,” and “ he felt as
 “ if the principle of life had departed from his frame,”
 though he suffered no pain or uneasiness. He became,
 afterwards, quite insensible; but, having been roused by
 the rolling of the ship, contrived to go on deck, and was
 recovered by pouring a bucket of sea water on his head.
 His memory, which had been entirely lost for about a

quarter of an hour, then returned, and “ he acquired
 “ a most vivid recollection of a vast variety of ideas and
 “ events which appeared to have passed through his mind
 “ and occupied him during the time of his supposed in-
 “ sensibility.” Odours may be supposed to operate, either
 by being inhaled into the lungs, and from this mode of ac-
 tion it is said in Germany that the effluvia of fir forests are
 beneficial in pulmonary complaints, or by being absorbed
 through the pores of the skin; and thus it is, I presume,
 that those who inhabit houses constructed principally of
 the Cinchona Wood are secured from the intermittent
 fevers of Peru, or by a direct agency on the nerves. It
 was the opinion of Linnæus, that those medicinal sub-
 stances which affect the smell more powerfully than the
 taste, operate upon the vascular system, and those in
 which the contrary is perceived, upon the nervous system;
 but it is, in many cases, difficult to compare, in different
 organs, the degrees of intensity in which they are severally
 excited, nor does every individual possess those senses in
 equal power. Those Odours which act upon the nerves
 might, perhaps, be useful auxiliaries in some or all of
 those diseases included in the class of *Neuroses*, by Cullen,
 and of *Neurotica*, by Good; and it is known that a very
 painful malady of the nervous system, the *Tic douloureux*,
 has been cured by inhaling, through the nostrils, the Sul-
 phate of Quinine. Some Odours seem to have been
 intended by Providence as Antidotes against pestilential
 exhalations, for we perceive that those arising from stagnant
 waters are corrected by the Mints which grow near them;
 and, in the same manner, a fumigation of Juniper Berries
 is considered to be very salutary in damp weather. Lord
 Bacon mentions, that “ Groves of Bays cure a pestilential
 “ disposition in the air;” that the vapours of Rose Water,

Vinegar, Violets, Vine Leaves, &c. are proper in ardent fevers, consumptions, and want of sleep; and that dry Bay Leaves, dry Rosemary, and Lignum Aloes, are a good fumigation in the morning. It would be extremely desirable and important to ascertain with respect to each Odour, what is its peculiar mode of operation, whether by being inhaled, or by being absorbed, or by acting on the nerves, and to determine with precision its effects. I do not here refer to those articles of the *Materia Medica* which, by their Odours, may be expected to have influences similar to those of the substances from which they emanate; nor do I refer to those which, like the common smelling salts, may be only pungent, and which may consequently have a mechanical, more than a medicinal, action. We all know that a very salutary and scientific employment has been made of the exhalations of medicinal Plants, by passing through them hot air or vapour, and that such baths have been found very serviceable in a variety of diseases. In some of them, the cure may have been promoted by the heat to which the Patient is exposed; but any effect which does not and cannot arise from that cause, must be ascribed to those exhalations. Mr. Whitlaw, who acquired so much knowledge on the medicinal qualities of Vegetables during his residence in the new world, employs for the purpose dried Plants, which are the finest that I have yet seen, having the freshness, and almost the fragrance, of those newly gathered; and some specimens of them are now exhibited on the table. I earnestly hope that my learned friend, Dr. Sigmond, will continue the researches which he has laudably commenced on the subject of Odours, and will favour us with a communication respecting them, when the important avocations

which he pursues, with so much zeal and success, allow him sufficient leisure for the purpose.

In the course of that Paper, he notices a subject which belongs indeed to Horticulture, and not to Medical Botany, but which is of general interest and highly deserving of attention. It is the mode that is practised, in the East Indies, for imparting fragrance to Flowers, and for which the following directions are given in a Work on Gardening, written in the Hindostanee language:—"Take out the
 "earth from the root of a Tree which does not produce
 "fragrant flowers, embrocate it with the bruised buds of
 "EUGENIA *Jambolana*, CYPERUS *rotundus*, and AN-
 "DROPOGON *muricatus*, and afterwards boil the same in
 "water. When cool, water the Tree with it, and this
 "treatment will render the flowers fragrant; or, if applied
 "to Shrubs producing odorous flowers, will increase their
 "scent, or to Fruit Trees, will render the fruit scented;
 "but it must be performed on young plants." It adds, that if a species of *Zyzyphus* is watered with the juice of the FERONIA *elephantum*, mixed with Honey, Liquorice, and Sesamum Seed, it will bear fragrant, sweet, and large fruits. As the Plants above mentioned, with the single exception of the CYPERUS *rotundus*, cannot in this country be reared except in Stoves, and therefore are not produced in sufficient abundance for the purpose of experiments, it would obviously be impracticable for us to make those trials in the manner which is directed, but the subject is not unknown in Europe; and some German Works on Gardening give the following instructions:—"Put into a
 "glass, half filled with vinegar, a handful of Sheep's
 "Dung, and stir them together; then add a little Musk,
 "or some Ambergris, in powder, and let the Flower Seeds,

“ or the Flower Bulbs, be steeped for some days, in the liquid. As soon as the Seeds or Bulbs are put into the earth, they are to be watered with this liquid, and the same is to be done several times, using alternately fresh water, as soon as they begin to shew themselves above ground. The Flowers produced upon these Plants will have a very sweet and agreeable odour, as experience has proved.” These directions are similar to those given by the Abbé de Vallemont, some of whose opinions appear very fanciful; and Ferrari mentions, in his Flora, that the Seeds of African Marygolds, which had been steeped for two days in Rose Water with a little Musk, yielded Flowers that had some fragrance, though they had not entirely lost their nauseous scent, but that the Seeds gathered from them, being treated in the same manner, produced Flowers which, as he expresses it, “ might vie in sweetness with Jessamines and Violets.” Musk, which, when used in a very small quantity, has the remarkable property of increasing the odour of other substances without imparting its own, might be suitable for this experiment, but it does not appear to me that Ambergris could be employed with advantage as it is insoluble in water. This experiment might, according to the principles of vegetable Physiology, be attended with some success, which, I fear, would not be the case with others mentioned in the same works for altering the colour of Flowers. I ought, however, to apologize to you for introducing any subject which is not immediately connected with the objects of this Society.

We have also to thank Dr. Sigmond for a very valuable and important Paper on the use of Elm Bark in cases of Leprous Eruptions. This article of the *Materia Medica* is mentioned in several Works, and amongst others in the

excellent and elaborate *Apparatus Medicaminum* of Dr. Murray, as having been employed with advantage in such diseases ; and it was much recommended by Banau, who had successfully tried it in general Herpes, inveterate ulcers, cancerous and scrofulous complaints, as well as in Scabies and *Tinea Capitis*, and who relates a very remarkable cure which it had enabled him to perform. We know also that it was noticed by Quincy, and that it was praised in the Medical Memoirs by Dr. Lettsom, who mentions a case of what is called by Sauvages the *Lepra ichthyosis*, which had been cured by this remedy, although it had resisted mercurial, antimonial, and other medicines, as well as various topical remedies ; and many proofs of its efficacy are given by Dr. Lysons in the Medical Transactions. It was considered by Linnæus to be astringent and vulnerary, and to be useful in Ascites, Wounds, Burns, and Scabies ; and by the late Professor Geiger to be “ *abstergens, mundificans, roborans* ;” but Mr. Phillips, in his Translation of the Pharmacopeia of the Royal College, states that it is given as a diuretic, and in herpetic eruptions, and observes, that “ its powers are questionable.” It deserves to be noticed, that the inner bark, which alone is the officinal part, is quite different in its nature from the outward bark, which appears to be inert ; and that, according to the opinion of Dr. Murray, it ought to be collected in the spring from the young boughs, but in the autumn from the roots. He advises, that during the cure, the body should be kept open, and that the diet should be chiefly vegetable—a direction which may not always have received due attention—and that in obstinate cases its use should be continued for some months ; but some Patients may not have possessed sufficient perseverance to follow this injunction. Dr. Sigmond, who had “ ample oppor-

“tunities of deriving great advantage” from this remedy, observes, that its operation is gently diuretic, producing the secretion of an acid and a red deposit, and that soon afterwards the skin assumes a more healthy appearance. From his experience in “ many successful cases,” he strongly recommends it, when Sarsaparilla and Mezereon have been administered, as “ it is not only equally successful in many instances, but its effects are more speedy and decided ;” and he states, that it has a “ most marked influence” in “ all the varieties of Lepra.” He found, that in the *Lepra vulgaris*, as it is commonly termed, it is even preferable to Sarsaparilla, and that it is particularly serviceable in cases of scaly disease. He also informs us, that it removes very speedily those Eruptions which are called *Lichen*, and that it is useful in the milder cases of Erysipelas when the constitution is not affected, as well as in *Tinea Capitis*, for which it is employed as a Lotion. He remarks, that it is very beneficial in those complaints of the skin when the Papillæ are in a state of high irritation, amounting almost to inflammation, and when mercurial preparations are rather injurious than otherwise. Amongst a great number of cases which came under his personal observation, and which have fully and satisfactorily proved the “ great importance” of this remedy “ in the case of various eruptive diseases,” he mentions the instance of a Patient who had been afflicted for two years, although she had been under the care of some experienced Physicians, and the symptoms were very inveterate, but she was otherwise in good health. The cure was, however, rapidly effected, by giving thrice a day 4 oz. of the Decoction, and cathartic medicines were employed only once or twice, as he considered their action to impede, in some degree, that which the Elm Bark exerts upon the

kidneys, and which, in his judgment, is essential to its operation. In cases of Exanthema the Patient must not be discouraged if the remedy should at first produce a greater eruption, which, as Dr. Murray tells us, is sometimes experienced. The Decoction is prepared, according to the directions of the Royal College, by boiling $2\frac{1}{2}$ oz. of the inner Bark in 2 pints of Water, till it is reduced to one half of the quantity; but if too much heat is employed it becomes more bitter, and its mucilaginous quality is destroyed. As it is administered three or four times a day in doses of 4 or 6 oz., it might be desirable to ascertain whether its medicinal qualities would be preserved, if it were exhibited in a more concentrated, and therefore convenient, form; and in collecting the Bark it seems proper to observe the recommendation of Banau, to select Trees which are not above 10 or 12 years growth, as he thinks that they contain more of its essential property than those which are older.

It is the opinion of Dr. Hancock, that this country possesses indigenous remedies "equal in all respects to those abroad, were they duly attended to by intelligent persons, and employed in sufficient doses," and that "although in hot climates the essential properties may be more highly elaborated, yet those of this country are doubtless equally adapted to its diseases." The former of these propositions is illustrated by the admirable Paper of Dr. Rousseau, on the efficacy of the common Holly in curing intermittent Fevers, even such as had resisted the use of Cinchona and Quinine; the latter by Dr. Sigmond, with respect to Elm Bark which, in some Leprous diseases that are known in this country, can be administered with very great advantage, although more potent remedies, like the *IONIDIUM Marcucii*, may be

requisite in South America where the malady assumes, from the heat of the climate, or from other causes, an aggravated character. It cannot be supposed that any of the diseases which have existed even from the earliest ages were incurable except by Drugs that could be procured only from the other side of the Atlantic, and that until the discovery of America, those who were thus afflicted were doomed to languish in a helpless and hopeless condition. Such a supposition would be inconsistent with the dispensations of Divine Providence, which display infinite goodness and wisdom, and which induce me to believe, that in every country those remedies are indigenous that are best suited to its maladies, influenced as they must be by its soil and climate, which determine also its vegetable productions. Nor can it be supposed that, for the cure of any of those diseases, we must necessarily have recourse to the operose processes of Chemistry, which remained unknown during many centuries, and still continue to be so in many countries, and that until they were invented, and unless they were employed, the sufferings of the human race could neither be remedied nor relieved. The advance of civilization has brought with it new medicines, but also new disorders; and those which now prevail seem to indicate debility, while those of former ages were of the contrary character. I will not now inquire whether this circumstance may be ascribed partly to the misuse of mercurial preparations, and partly to another cause, which appears to be of extreme importance, but not to have been sufficiently considered. Longevity has been promoted, and the habits of the world have happily become more temperate; yet it cannot be denied that, amongst the rising generation in this and in some other European countries, bodily and mental vigour have

declined as well as that energy and animation which accompany health, and are requisite for the enjoyment of life. Although great improvements have been made in Medicine, which, as a science is more interesting, and as an art is more important than any other, we ought not to undervalue the practice which has been found successful in other parts of the world, even in countries that are uncivilized; but, on the contrary, we should endeavour to acquire ample and accurate information upon the subject, in order that medical practitioners may judge whether such remedies might not in some cases be adopted or imitated with advantage, and, above all, we should ascertain whether efficient substitutes might not be found for them amongst the vegetable productions of this country. It is by these and similar researches, pursued with the zeal and perseverance which their importance so eminently deserves, and which I earnestly hope, and confidently expect, will be crowned with success, that the fame of this Society will be extended, its utility will be duly appreciated, and its objects will be attained by promoting the benefit of mankind.